数码监视器
MONITOR

ML20
彩色视频监视器
COLOURED VIDEO MONITOR

使用说明书
OPERATION MANUAL

尊敬的客户，因本机功能较多，为了充分有效地应用各项功能，
使用前，请您详细阅读本机使用说明书。
This unit is with multi functions, so for best performance
please read the instructions carefully before your operation.

创 意 感 动 生 活
The Creative Life

TCL

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重要安全指示

为了防止任何伤害，请在安装、使用、服务与维修本设备时，遵循以下安全注意事项。
操作本设备之前，请仔细阅读本手册，并就近保存，以备未来参考之用。

WARNING	此闪电标志是警告使用者，去避免电击危险；非具资格的专业人员，请勿擅自拆机。
CAUTION	此惊叹号标志是警告使用者，遵照附随的装置文件中，所记载的重要操作及保养。

为了减少会造成电击及火灾的危险性，请勿将本设备曝露在雨中或潮湿的环境中。

- 勿移动外壳(包含背面)
- 内部不含使用者可修复的零件
- 求助于具资格的专业人员

使用非本手册内叙述的操作、调整或作业流程，都有可能导致曝露在危险的辐射中 。

重要的安全指示	
	此标志是警告指示。
	此标志是警告使用者，应遵照装置文件中指示。
	此惊叹号标志是警告使用者，必须遵照警告指示。

- 请勿将本设备放于任何不平或不牢固的推车、支架、小桌、架子上等。这样可能会使本设备滑落，对孩童或成人造成严重的伤害及对装置本身造成严重损害。

- 请勿破坏3针的接地类型插头。3针插头的接地插针是一种重要的功能。移除接地插针将会增加损坏设备的危险。
- 如果您无法将插头插入插座，请与电力技师联络，以安装接地插座。
- 特别注意: 该机属工业用品, 不用于家庭一般使用。

重要安全指示

- 请永远在机型面板后方所指定的电源类型下操作本设备。
- 请勿使墙上插座与延长线过载。
- 请小心使用及处理电源线。
- 请勿将任何重物放在AC电源线上。
- 请勿拉扯AC电源线。 请勿用湿手触摸AC电源线。
- 请勿在雷雨天气下触摸电源线。
- 如果长时间不使用本设备，请将插头从墙上插座拔下。
- 请勿将装置放于近水之处，或在近水处使用或处理本设备。
- 请勿将装置暴露于液体、雨水或潮湿的环境中。 如果有以上任何液体溅入装置中，请向合格的维修人员寻求协助。
- 请勿尝试自行维修本设备。
- 开启及卸下机壳可能会使您暴露于危险的电压之下或使您遭到其他危险，并可能使您丧失保修的权利。 如要维修请找合格的维修人员。
- 清洁本设备之前，请务必将电源线从插座上拔下。
- 请勿使用任何硬物或尖锐物品接触及摩擦屏幕。
- 请勿使用任何化学液体或喷雾清洁剂清洁本设备。请务必使用软干布清洁。

- 请勿将本设备暴露于极高或极低的温度或直射的阳光之下，因为这样可能会使装置发热而造成损害。
- 请勿在热源，例如暖器、散热器、火炉或其他可能产生热量的设备附近安装本设备。
- 请勿堵塞任何通风口。 请保持装置周围通风良好。
- 请勿将本设备放置于以下位置：床、沙发、地毯或其他有相似表面的地方；太过接近布幔/窗帘/墙壁、书架、内置柜或其他相似的地方可能会造成通风不良。

第一章 彩色视频监视器的介绍

功能特征

性能特点：

超高清晰度，达到147万象素，良好的再现图像细节
丰富的色彩，16777216色，具有优秀的色彩还原能力
高亮度，高对比度，提升画面层次感
极速响应,绝无拖尾,提供高速运动物体精确追踪
170度以上超大视角，在任意方向看清画面
绝无闪烁,保护你的眼睛
NTSC/PAL/SECAM自适应/可选
2种语言屏幕菜单显示
长时间显示固定图像无残影

技术特点：

采用3D滤波分离技术，精准的Y/C分离，保证图像清晰度和色彩还原
采用TNR降噪技术，画面洁净噪点小
采用先进的I/P转换技术，将隔行信号转换为逐行信号
VGA支持1024X768，800X600，640X480多种模式
场频支持：60HZ 70HZ 75HZ
支持高清信号输入：SVIDEO，Y/Pb/Pr

结构特点：

内金属屏蔽结构，屏蔽良好抗电磁干扰
超薄超轻设计，外观新颖美观，适合拼接成电视墙，安装快捷简便
结构设计适合于以下三种安装方式：
  单台座装：可选座装底座，美观大方
  墙装：可选配墙装支架，多台拼接定位、走线方便
  机柜安装：有专用的柜装孔位

电气功能特点：

宽电压范围，可在100VAC—240VAC范围内正常工作
节能环保，比同尺寸CRT监视器节电70%
功耗低，发热低。适合于长时间连续工作

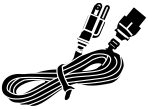
物件清点

打开包装后，请清点下列物件是否齐全，如果有任何短缺，请联络你的经销商。

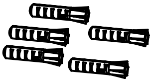
☑ 彩色视频监视器

☑ 底座

☑ AC电源线

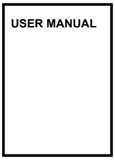


☑ 膨胀塞

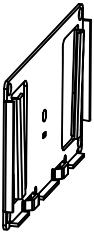


☑ 遥控器
7#电池一对

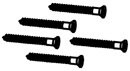
☑ 使用说明书



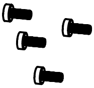
☑ 墙壁架



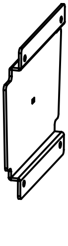
☑ 自攻螺丝（M4X35）



☑ 机牙螺丝（M4X12）



☑ 支撑架



以上物件全部都是在基本架构下安装时所需要的物件。

遥控器

遥控器接收窗

菜单键

· 显示、退出主菜单

· 进入菜单中返回上一级菜单

增加键

· 菜单里的选项或下一级菜单数据调整（改变、增加）

上移键

· SOURCE键和确认键

下移键

· 菜单项中下移操作

· 在调出信源菜单的情况下选择输入信号源

减少键

· 菜单里的选项或下一级菜单数据调整（改变、减少）

注意:

“增加、减少”、“上移、下移”键只有在进入菜单界面下有效。

遥控器电池的安装

打开遥控器背面的电池盒盖，然后按电池盒内所标注的及性相应放入两节7号1.5V电池，最后把电池盒盖盖上。

遥控器的使用

无线遥控：不需要连接遥控器“有线遥控接口”，只需要将遥控器对准主机前面的遥控接收窗。若主机与遥控器之间有障碍物，遥控可能会失灵。

注意:

1、为确保遥控器良好的操作性能，如发现操作不正常，请换电池再试。

2、不要将新、旧电池或不同型号的电池混合使用。

3、电池电力微弱时会发生泄漏电解液现象，这会损坏遥控器，一旦发现电力微弱，应尽快更换电池。

4、若长期不使用遥控器，请把电池取出，以免电池泄漏电解液。

彩色视频监视器的安装

用户可以选择单台座装、挂墙安装和机柜安装三种方式

监视器**单台座装**的方法

请按照下列步骤安装**监**视器脚座：

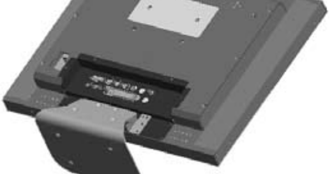
❶ 打开外箱，并确定所有物件都在箱子中，包装中有下列物件：

彩色视频监视器

底座

❷ 为了保护液晶屏幕，请先将工作平台上铺上一层柔软的布，再将液晶面朝下放置在布上。

❸ 将视频监视器的底座如下图所示对准电视背后的底座安装孔，利用螺丝刀把底座专用螺丝平均的锁紧底座和视频监视器。

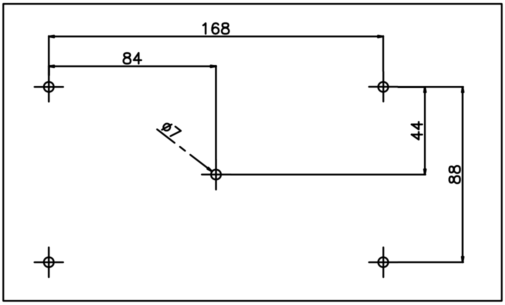


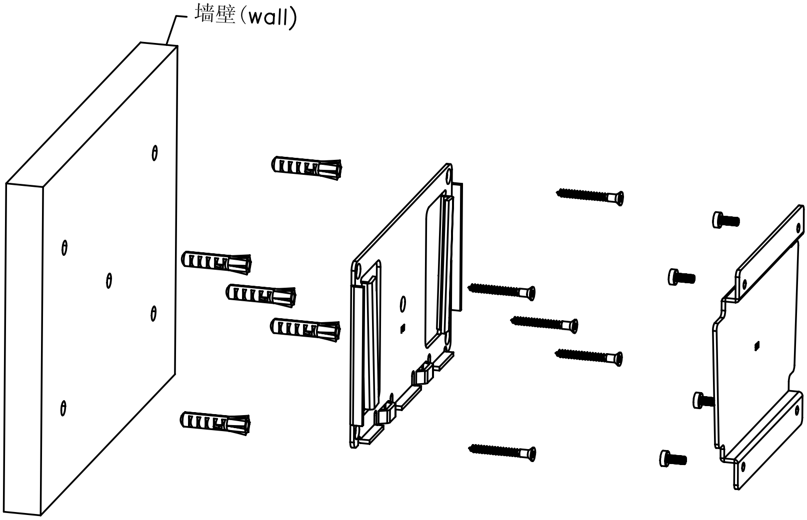
彩色视频监视器挂墙安装的方法

挂墙安装方法如下所示：

1 在墙上钻直径为7MM的五个底孔，孔间距如图所示;
2 再把五个膨胀塞敲入底孔内，使其与墙面相平;
3 用自攻螺丝穿过墙壁架，使其锁附，并相平;
4 用机牙螺丝穿过支撑架，使其锁附监视器，并相平;
5 用第四步装成的部件与装在墙壁上的墙壁架梯形滑轨配合.

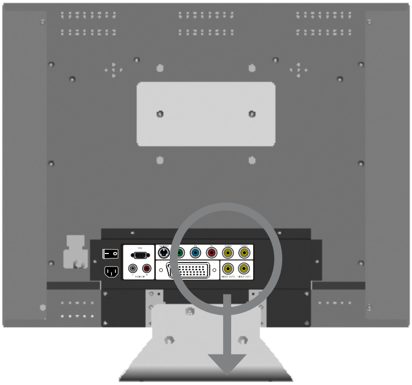
墙壁钻孔间距图





你的彩色视频监视器

背示图/连接埠



AC IN
连接AC电源线。

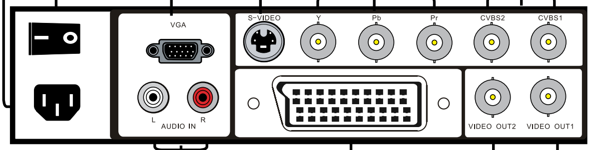
POWER SWITCH
开啓和关闭**监**视器的主电源。

VGA
连接到具有VGA端输出接口的外接视频设备、个人电脑。
(第4、5脚为画面冻结开关，触发一次冻结，再触发释放)

S-VIDEO
连接到具有S-视频输出接口的外接视频设备。

COMPONENT VIDEO IN
连接到具有分量〔YPbPr/YCbCr〕视频输出接口的DVD或其它外接视频设备。

CVBS1/CVBS2
连接到具有CVBS输出接口的摄像机，硬盘录像机 。



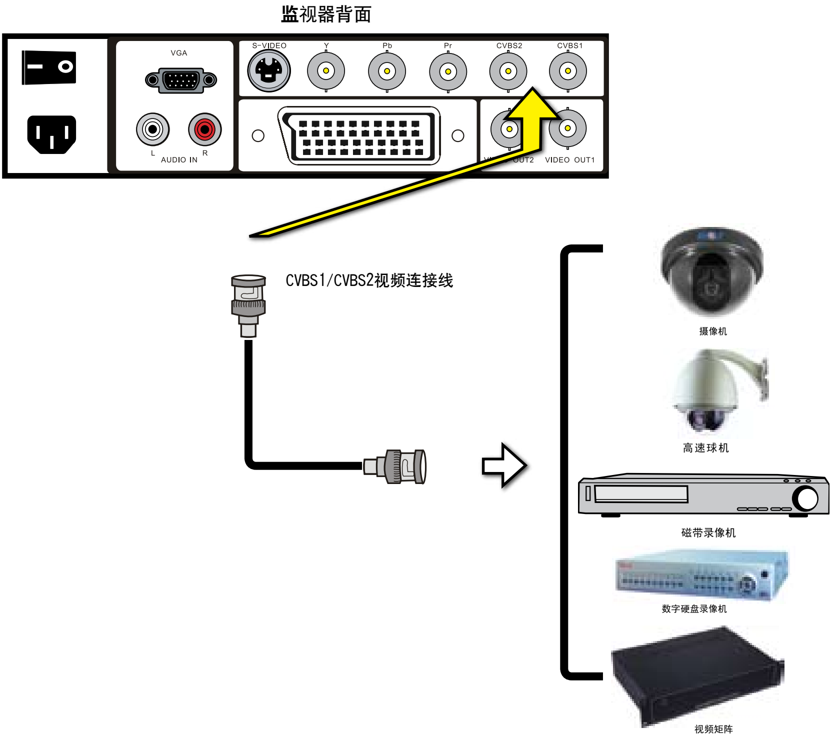
AUDIO IN
连接到具有左右通道输出接口的外接音频设备。

21 PIN 复合接口
为挂墙安装方便而设计的复合输入接口(此机型无作用)。

VIDEO OUT1/VIDEO OUT2
CVBS1/CVBS2的**环**通输出。

第二章　彩色视频监视器的连接

连接复合视频设备

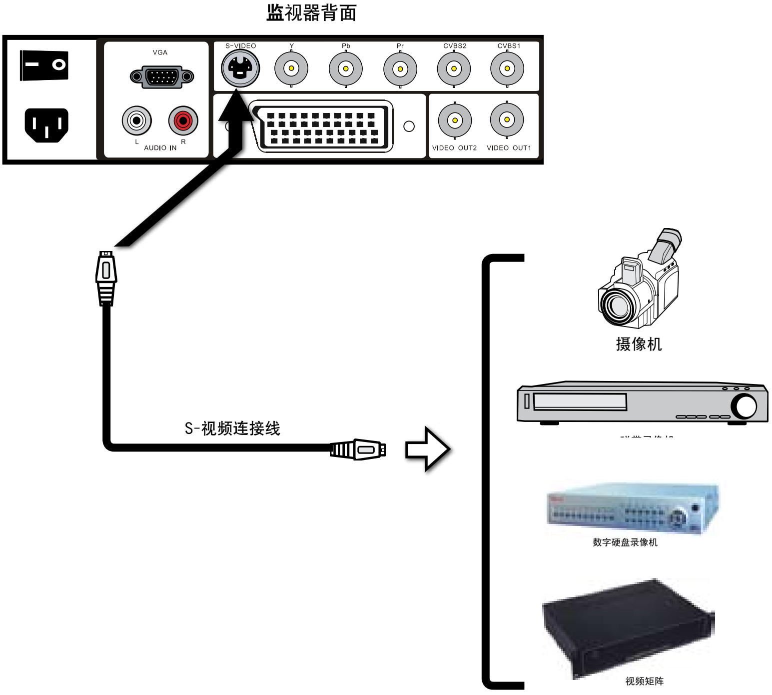


❶ 使用CVBS视频连接线，连接外接视频设备的CVBS视频输入接口到视频监视器的CVBS视频输入接口。

❷ 所有设备开机前，请确认全部电源线已连接完成，并确定电源开关为开启。

❸ 按遥控器上的 “上移” 键，选择信号来源为CVBS1(AV1)或CVBS2(AV2)。

连接具有S-VIDEO接口的外接视频设备

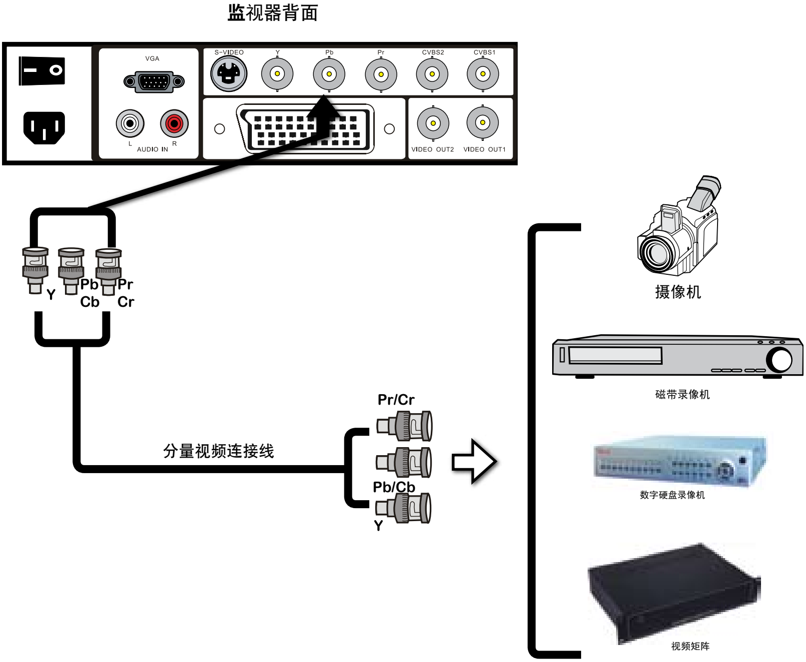


❶ 使用一条S-视频连接线，连接外接视频设备的S-video输出接口到视频监视器的S-视频(S-VIDEO IN)输入接口。

❷ 所有设备开机前，请确认全部电源线已连接完成，并确定电源开关为开启。

❸ 按遥控器上的“上移”键，选择信号来源为S-VIDEO(AV3)。

连接具有分量(Component)输出接口的外接视频设备



不是所有外接视频设备可以和视频监视器连接，请详细阅读外接视频设备的使用手册。

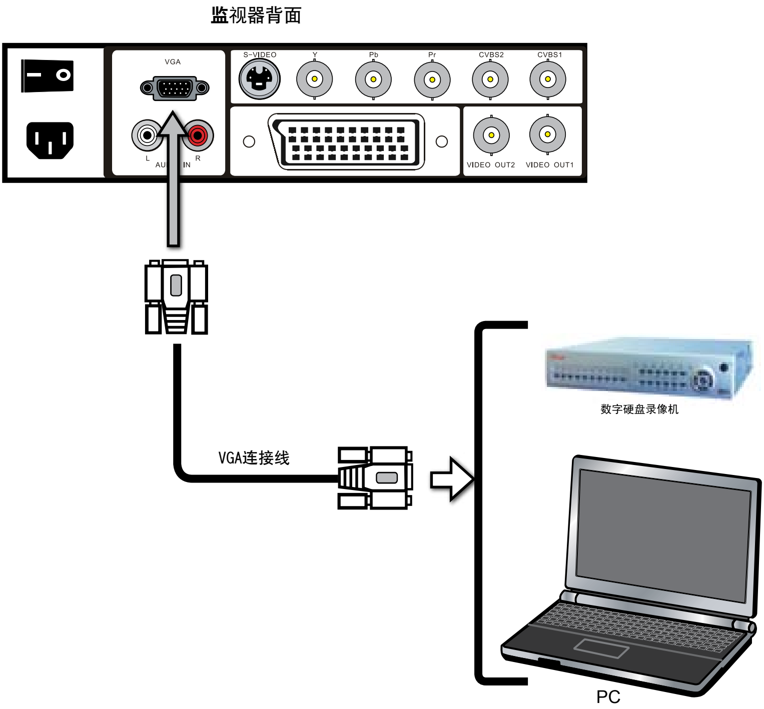
❶ 使用一条分量视频连接线，连接外接视频设备的分量视频输出接口到视频监视器的YPbPr IN输入接口。

❷ 所有设备开机前，请确认全部电源线已连接完成，并确定电源开关为开启。

❸ 重复按遥控器上的“上移”键，选择YPbPr(AV4)。

在DVD播放器的分量输出接口标示可能是YPbPr或是YCbCr，请详阅DVD播放器的使用手册。

连接VGA设备

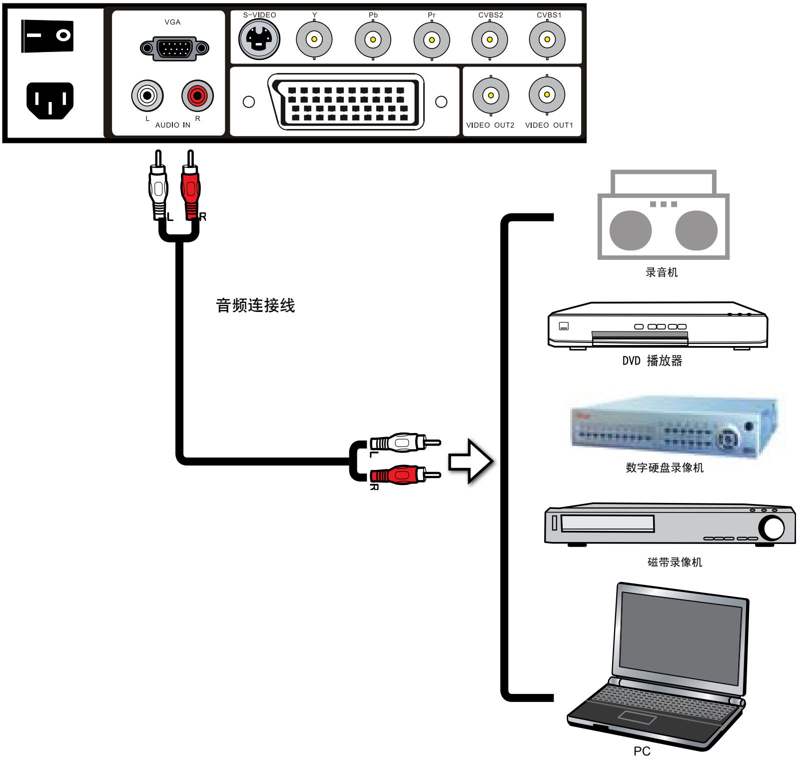


❶ 使用一条VGA连接线，连接个人电脑或DVR的VGA输出接口到视频监视器的VGA输入接口。

❷ 所有设备开机前，请确认全部电源线已连接完成，并确定电源开关为开启。

❸ 要观赏或使用外接的个人电脑，可按遥控器上的“上移”键，选择信号来源为VGA(AV5)。

连接音频



❶ 使用音频连接线，将外接音频设备的左右声道输出，连接到视频监视器的 AUDIO IN 音频输入接口。

❷ 所有设备开机前，请确认全部电源线已连接完成，并确定电源开关为开启。

第三章　彩色视频监视器的功能操作

菜单功能操作

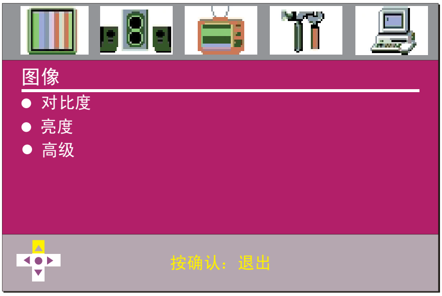
❶ 选择图像输入来源后，按遥控器菜单键，显示主菜单，使用遥控器上的“增加、减少”键选择菜单的选项。

图像菜单：

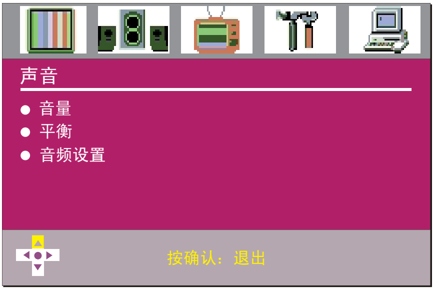
可调整视频监视器的图像设定值

■ 若是你的图像来源是CVBS/S-VIDEO/YPbPr，图像菜单显示如下：

■ 若是你的图像来源是VGA，图像菜单显示如下：

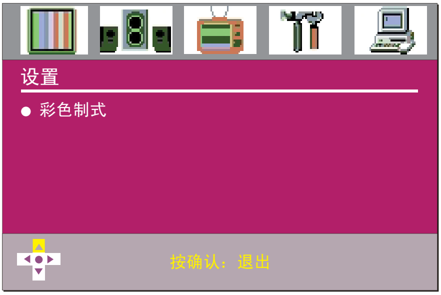


声音菜单



设置菜单

可自定视频监视器彩色制式设定



选项菜单

可自定视频监视器的菜单 、蓝屏 、菜单显示时间、菜单复位等选项

屏幕菜单

可自定视频监视器的水平尺寸、水平位置、垂直位置、相位和自动调整

❷ 使用遥控器“下移”键选择子菜单选项，使用“增加、减少”键改变子菜单选项的设定值。

❸ 再按遥控器上的“菜单”键，离开主菜单。

图像菜单的设定

❶ 按遥控器上的“菜单”键，显示屏幕主菜单图像选项。

❷ 使用遥控器上的“ 下移 ”键，选择子菜单选项，使用“增加、减少”键改变子菜单上选项的设定值。

■ 若是你的图像来源是CVBS/S-VIDEO/YPbPr，图像菜单显示如下：

■ 若是你的图像来源是VGA，图像菜单显示如下：

❸ 图像菜单包括以下选项：

图像模式	可调整视频监视器的图像模式为自定义、标准、鲜艳、柔和
对比度	可调整视频监视器图像的明暗对比
亮度	可调整视频监视器图像的明亮度
饱和度	可调整视频监视器图像的色浓度
清晰度	可调整视频监视器图像的锐利度
高级	可调整视频监视器的图像质量，例如：数字降噪、动态对比度、蓝延伸、绿延伸和色温。 色温： 暖色：使白色色度呈现较红色的色调 。 冷色：使白色色度呈现较蓝色的色调 。 标准：使白色色度呈现较均衡的色调 。

声音菜单的设定

❶ 按遥控器上的 “菜单” 键，显示屏幕主菜单，使用 “增加、减少” 键，去移动反白区块至声音菜单.

❷ 使用 “下移” 键选择子菜单选项，再按 “增加、减少” 键调整选项值。

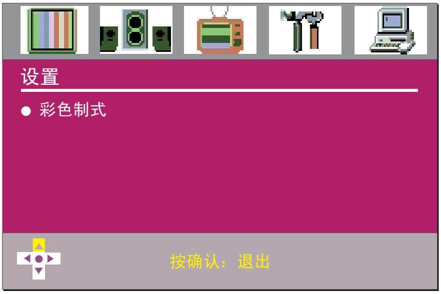
❸ 声音菜单包括以下选项：

音量	可调整视频监视器的音量
平衡	可平衡视频监视器的左边和右边喇叭的音量
音频设置	1、当选择Off时，CVBS1有声音输入，其它SOURCE无声音 2、当选择On时，全部SOURCE都有声音输入

设置菜单的设定

❶ 按遥控器上的 “菜单” 键，显示屏幕主菜单，使用 “增加、减少” 键，去移动反白区块至设置菜单.

❷ 使用 “下移” 键选择子菜单选项，再按 “增加、减少” 键调整选项。



❸ 设置菜单包括以下选项：

彩色制式	可选择视频监视器的彩色制式为:AUTO/NTSC M/PAL/PAL 60 NTSC 443/SECAM,

选项菜单的设定

❶ 按遥控器上的 “菜单” 键，显示屏幕主菜单，使用 “增加、减少” 键，去移动反白区块至选项菜单.

❷ 使用 “下移” 键选择子菜单选项，再按 “增加、减少” 键调整选项。

❸ 选项菜单包括以下选项：

菜单	可设置视频监视器菜单的显示语言和透明度。
蓝屏	无信号时可选择蓝屏的开和关。
菜单显示时间	可设置菜单显示时间为：5s/10s/15s/20s/25s.
菜单复位	恢复菜单初始设定.

故障排除

在寻求维修服务之前，请检查下列项目以确认是否能解决所遇到故障现象。

现 象	检 查 项 目
液晶监视器屏幕不亮	• 请确认电源适配器220V插头已牢固地插入电源插座。 • 请确认监视器后电源开关已经打开。 • 请确认本机没有处于待机状态。
无图像	• 请确认已连接信号线，并且信号线完好。 • 请确认本机当前视频输入选择正确。 • 请确认已将信号输入的外部设备的电源开关打开并且工作正常。
无声音	• 请确认音频输入信号正常 。 • 请确认音频连接线正常 。 • 请进入声音菜单，选择音量选项后按增加键增大音量 。
图像质量差	• 请确认视频监视器和外部设备连接的信号线是否完好。 • 请确认外部设备是否正常。 • 请参照本说明书检查各项设置是否正常或恢复工厂设置 。
图像变暗	• 屏幕照明管可能已达到使用期限。
画面有条纹 或色调变淡或有杂音	• 使用本机时请尽量远离可能引起干扰的设备 。

技术参数

型号	ML20
面板尺寸	20”
显示面积	408.24mm(H)x306.18mm(V)
整机尺寸（不包括底座/支架）	443.0mm(W)x354.5mm(H)x61.5(D)mm
显示模式	4:3
液晶类型	TFT-LCD
最大分辨率	1400x1050
显示色彩	16.7M
点距（mm）	0.2916(H)x0.2916(V)
亮度(nits)	500cd/m2
对比度	700:1
视角（上/下/左/右）	$80^0/80^0/85^0/85^0$
响应时间	8ms
场频	60Hz,70Hz,75Hz
复合视频输入	2 (BNC x 2)
Y, Pb, Pr / Y, Cb, Cr输入	1 (BNC x 3)
S-端子	1
D-15 RGB输入	1
音频输入(L/R)	1 (RCA x 2)
21针复合接口	1 (SCART x 1)
复合视频输出	2 (BNC x 2)
彩色系统	PAL/NTSC/SECAM
兼容的HDTV输入 (高清电视信号输入)	480P,576P，720P,1080I
3D Combfilter	有
视频降噪	有
语言(可选)	中文/英文
内置扬声器	3W x 2
电源	100-240V～， 50/60Hz,
最大功率损耗	≤50W
待机功率损耗	<3W

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2 Important Safeguards

4 Chapter 1 Introduction to LCD Monitor
4 Features
5 Packing List
6 Remote Control
7 Monitor Installation

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10 Composite Video Connection
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18 Picture Adjustment
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20 System Setting
21 Preferences Setting

22 Troubleshooting

23 Technical Specifications

Important Safeguards

To avoid any hazard, please follow all instructions herein when install, operate, service and maintain the uint. Read all of the instructions before operating the unit and keep these instructions well for future use.

WARNING	The lightning flash is intended to alert the user to avoid the risk of electric shock. Refer all servicing to qualified service personnel.
CAUTION	The exclamation point is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- Do not remove cover (or back).
- No user serviceable parts inside.
- Refer all servicing to qualified service personnel.

Use of controls, adjustments or procedures other than those specified herein may result in hazardous radiation exposure.

Important Saftety Symbols	
	The symbol is the caution notice.
	The symbol is intended to alert the user to follow the instructions in the literature accompanying the appliance.
	The exclamation point is intended to alert the user to follow the caution instructions.

- Do not place this unit on an unstable cart, stand, tripod, bracket, or table. The unit may fall, causing serious injury, and serious damage to the unit.

- Do not defeat the 3-wire grounding-type plug, a plug having a third (grounding) pin. This too, is a safety feature. Removing the third(grounding) pin may result in the damage to the unit.
- If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet.
- CAUTION: The unit belongs to the industrial apparatus and not for the household use.

Important Safeguards

- This unit should be operated only from the type of power source indicated on the rating plate.
- Do not overload wall outlets and extension cords.
- Extreme care should be taken to use and dispose power lines.
- Do not put any heavy objects on the AC power cord.
- Do not pull the AC power cord and do not touch it with the wet hand.
- Do not touch the power cord on the thunder storm weather.
- Unplug the unit when unused for a long period of time.
- Do not install, use or dispose this unit near water.
- Do not expose the unit to water, rain or moisture. Please ask the help for the qualified service personnel if such liquid is spilled into the unit.
- Do not attempt to service this unit yourself.
- Opening or removing covers may expose you to dangerous voltage or other hazards, or even make you lose your warranty. Refer all servicing to qualified service personnel.
- Unplug the unit before making the cleaning.
- Do not use the hard or sharp object to touch and clean the screen.
- Do not use chemical liquid or spray cleaner to clean the screen. Clean only with the soft cloth.

- Do not expose the unit to the extremely high or low temperature or direct sunlight, as it may produce heat and become dangerous.
- The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products that produce heat.
- Do not block any of the ventilation openings. Put the unit on a place that allows good ventilation.
- Do not place the unit on a bed,sofa, rug, or other similar surface. Poor ventilation may be caused if too close to the cloth/ curtain/wall,bookcase, built-in frame or other similar places.

Chapter 1 Introduction to LCD Monitor

Features

in Functions:

Super crystal clear, 1.47 Mega pixel, Recurring to good picture details;
Richful colours, Colour 16777216, Possessing excellent deep colour;
High brightness,High contrast, Promoting picture levels;
Prompt response, No tails, Tracking the fast moving objects;
Super wide 170 degree viewing angle, Seeing the picture in any view;
No flicker, Protecting your eyes;
NTSC/PAL/SECAM;
2 OSD languages;
No shaddows, Showing the fixed image for long;

in Techniques:

3D filter splitting and precise Y/C splitting, ensuring the good sharpness and deep colour;
TNR, reducing the noise and making the picture much clearer;
The advanced I/P techniques, converting interlace scan to progressive scan;
VGA, supporting 1024X768, 800X600, 640X480;
Frequency: 60HZ 70HZ 75HZ
Supporting HD input: S-VIDEO, Y/Pb/Pr

in Mechanics:

Inner metal shield, good anti-electromagnetic interference;
Super thin and super light design, brand new and fine appearance, applicable to make a display wall, easy and quick installation;
three installation methods:
Base installation: Install it on a fine base;
Wall mount: Wall mount it with the optional bracket, several monitors connected and cables easily got through;
Cabinet installation: specified holes for the cabinet installation.

in Electronics:

Wide voltage range:100VAC—240VAC
Energy saving, 70% lower than the CRT monitor of the same size
Low consumption and low heat, applicable for the long and continuous work

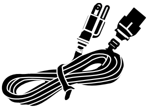
Packing List

When unpacked, please check if the following is included. If any one is missing, please contact the dealer.

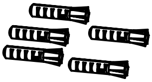
☑ LCD monitor

☑ Base

☑ AC power cord

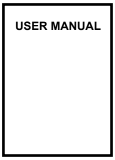


☑ Expanding stopple

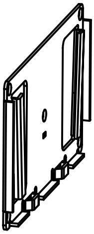


☑ Remote control
2 x AAA batteries

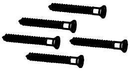
☑ User Manual



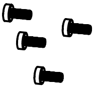
☑ Bracket



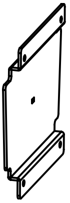
☑ Self tapping screw (M4X35)



☑ Machine screw (M4X12)



☑ Support



Above are all for the basic installation.

Remote Control

Transmitter

MENU

· Pop up and exit the main menu;

· Return to the previous menu.

RIGHT button

· Select the main menu options;
Make the adjustments of submenu options(Change/Increase the values)

UP button

· Act as the SOURCE button and OK button.

DOWN button

· Select the downwards options;

· Under the Source menu, select the signal input.

LEFT button

· Select the main menu options;
Make the adjustments of submenu options(Change/Decrease the values)

NOTE:

UP/DOWN buttons and LEFT/RIGHT buttons take effect only in the MENU mode.

Battery Installation

Remove the battery compartment lid from the back of the remote, insert the 2 x 1.5V AAA batteries, paying attention to the polarity, and then replace the cover.

Using the Remote Control

Wireless Remote: No need to connect it with the remote jacks. Point this wireless remote directly toward the infra-red sensor on the unit. If there is an obstacle between the unit and the remote,the remote signal may not be received.

NOTES:

1. For better performance, once you find the operation is abnormal, please replace the batteries and have a try again.
2. Do not mix old and new batteries or different types.
3. When the batteries are to be exhausted, battery leakage may occur and cause the damage to the remote. When the operation is not sensitive enough, the battery may be low, so please change batteries immediately.
4. If the device is not to be used for a long period of time, remove the batteries to prevent damage or injury from possible leakage.

Monitor Installation

There are three ways of installation: base installation, wall mount and cabinet installation.

Base installation

Follow the steps below to install the base:

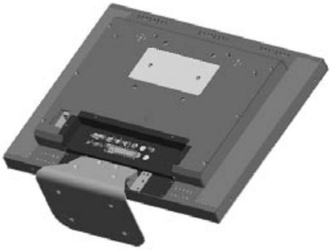
❶ Open the package and check if all the following is included:

Colour LCD Monitor

Base

❷ To protect the LCD screen, cover a soft cloth on the surface first and then face down the monitor.

❸ As figure below, point the base at the installation holes on the back and tighten them with the screw drivers.

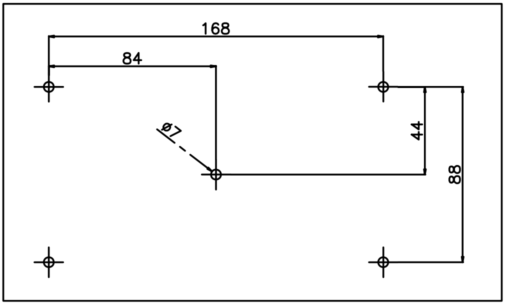


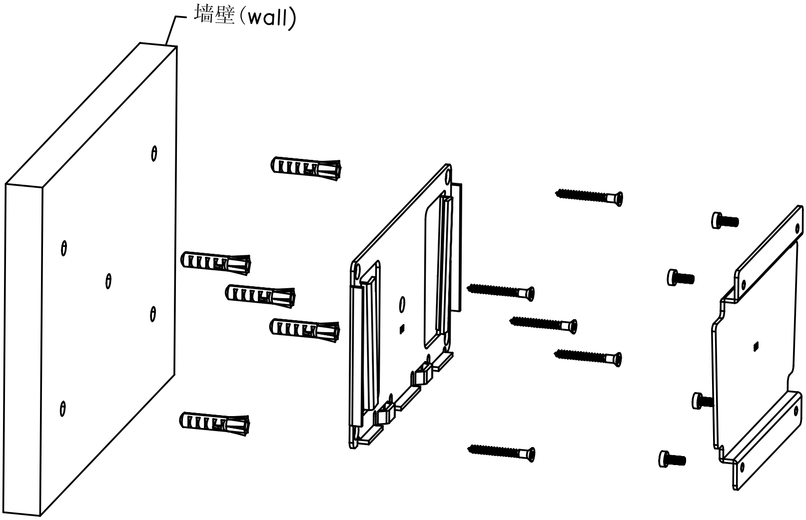
Wall Mount

Follow the steps below:

1. Drill the 5 holes with 7MM in diameter on the wall. The hole spacings are as shown below;
2. Make the 5 expanding stopples into those holes and level them with the wall surface;
3. Tighten the wall bracket with the self tapping screws, levelled with the wall surface;
4. Tighten the support and the monitor with the machine screws;
5. Then put the device installed on Step 4 on the trapeziform glide slot of the wall bracket.

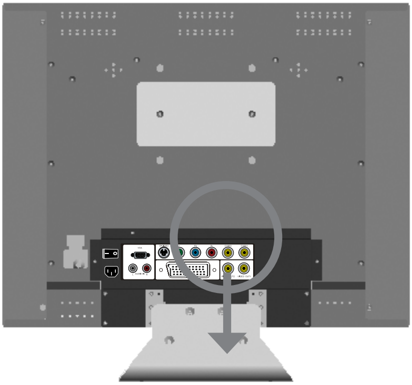
Figure for Hole Spacings



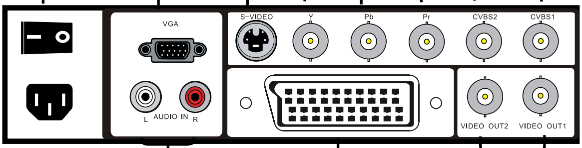


Your Colour LCD Monitor

Back View/Connections



- **AC IN**
  Connect the AC power cord.
- **POWER SWITCH**
  Turn on or off the mains power.
- **VGA**
  Connected to VGA output of the external video equipment, e.g. PC.
  (Pressing foot 4 and 5 once can freeze the picture.
  Press again to unfreeze it.)
- **S-VIDEO**
  Connected to S-VIDEO output of the external video equipment.
- **COMPONENT VIDEO IN**
  Connected to component output(YPbPr/YCbCr) of the video equipment, e.g. DVD.
- **CVBS1/CVBS2**
  Connected to CVBS output of the equipment, e.g. camcoder, video recoder.

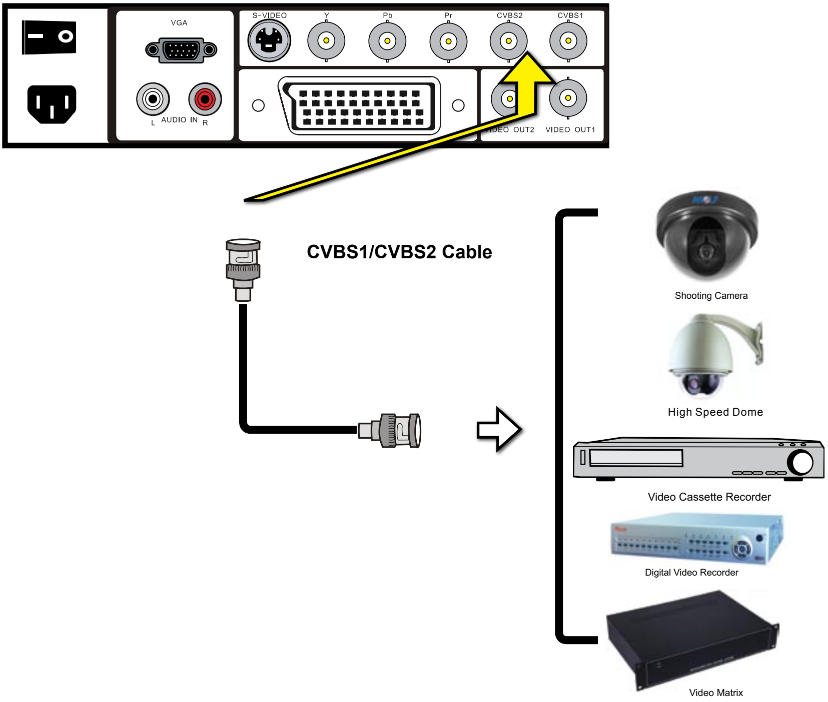


- **AUDIO IN**
  Connected to L and R audio output of the external audio equipment.
- **21 PIN COMPOSITE IN**
  Designed for the convenience of wall mounting (Not available for this model).
- **VIDEO OUT1/VIDEO OUT2**
  Loop output of CVBS1/CVBS2

Chapter 2 Monitor Connections

Composite Video Connection

Back View



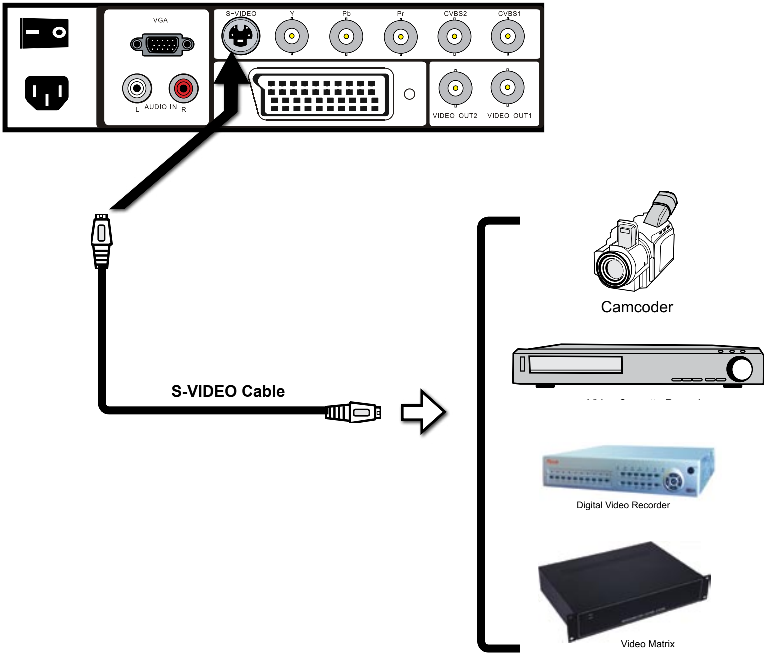
❶ Use a CVBS cable to connect CVBS output of external video equipment to CVBS input of the LCD monitor.

❷ Before powering on the unit, please make sure all the power cords in a good connection and the the power switch is on.

❸ Press the UP button on the remote control to select the source: CVBS1(AV1) or CVBS2(AV2).

S-VIDEO Connection

Back View



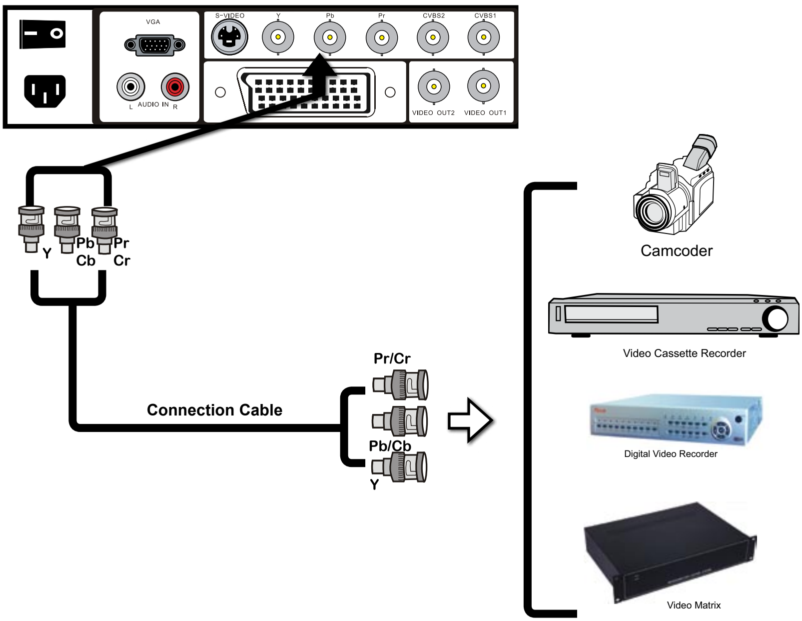
❶ Use an S-VIDEO cable to connect S-VIDEO output of external video equipment to S-VIDEO IN of the LCD monitor.

❷ Before powering on the unit, please make sure all the power cords in a good connection and the the power switch is on.

❸ Press the UP button on the remote control to select the source: S-VIDEO(AV3).

Component Connection

Back View



Not all the external equipments can be connected to LCD monitor, so please read the user manual of the equipment carefully.

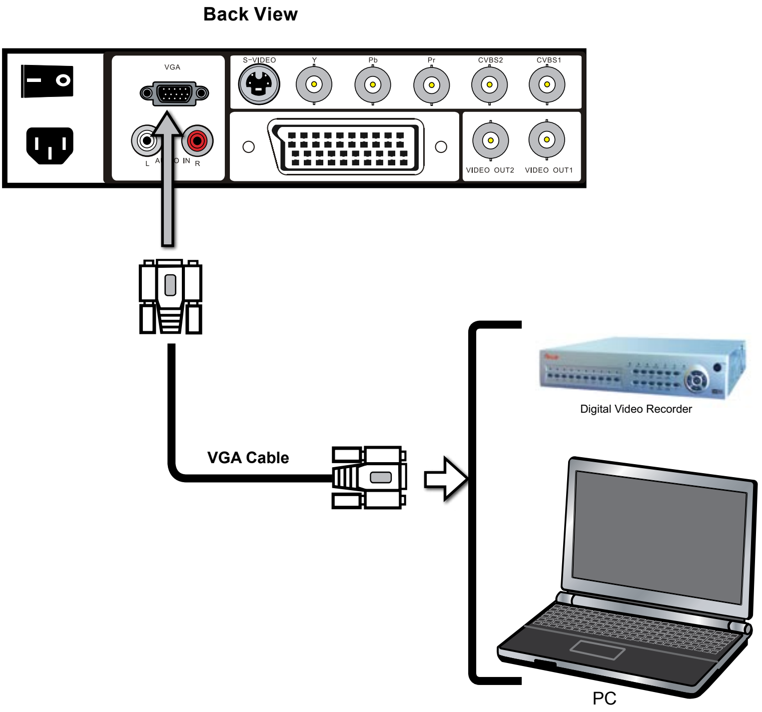
1. Use a connection cable to connect component output of external video equipment to YPbPr IN of the LCD monitor.

2. Before powering on the unit, please make sure all the power cords in a good connection and the the power switch is on.

3. Press the UP button on the remote control repeatedly to select YPbPr (AV4).

The component output on DVD may be YPbPr or YCbCr, so please read the user manual of DVD carefully.

VGA Connection

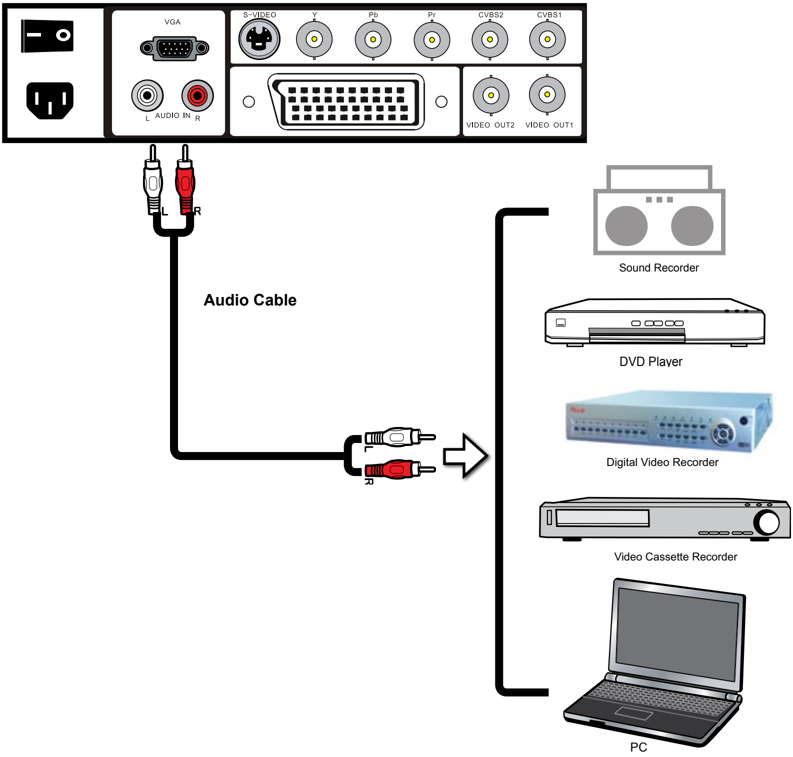


❶ Use a VGA cable to connect VGA output of PC or DVR to VGA IN of the LCD monitor.

❷ Before powering on the unit, please make sure all the power cords in a good connection and the the power switch is on.

❸ To use the PC, press the UP button on the remote control to select the source: VGA (AV5).

Audio Connection



❶ Use an audio cable to connect audio L/R output of the external audio equipment to AUDIO IN of the LCD monitor.

❷ Before powering on the unit, please make sure all the power cords in a good connection and the the power switch is on.

Chapter 3 Basic Operations

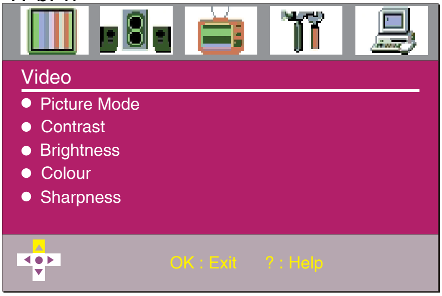
Menu Operations

❶ After selecting the signal source, press the MENU button on the remote control and display the main menu. You can use the UP/DOWN buttons on the remote control to select the options.

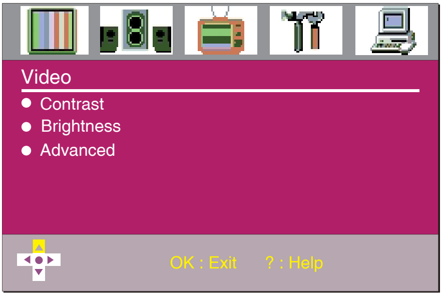
Picture Menu:

Adjust the values of the picture options

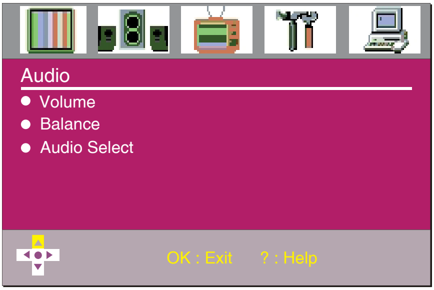
■ The picture menu is as follows, if the signal source is CVBS, S-VIDEO or YPbPr:



■ The picture menu is as follows, if the signal source is VGA:

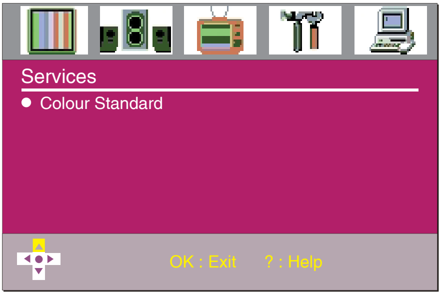


Audio Menu



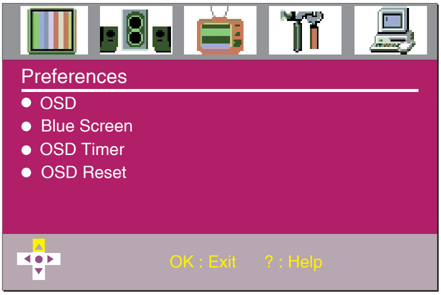
Services Menu

You can set the colour standard.



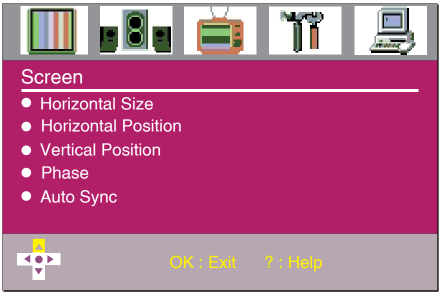
Preferences Menu

You can select the following options and make the settings: OSD, Blue Screen, OSD Time, OSD Reset.



Screen Menu

You can select the following options and make the settings: Horizontal Size, Horizontal Positon, Vertical Position, Phase and Auto Sync.



❷ Press the DOWN button on the remote control to select the submenu options and press the LEFT/RIGHT button to make the adjustments.

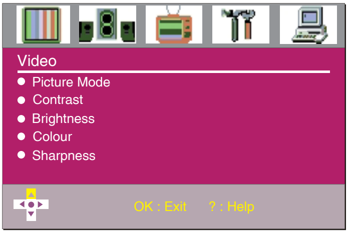
❸ Press the MENU button on the remote control again to exit the main menu.

Picture Adjustment

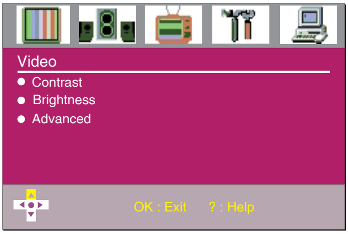
❶ Press the MENU button on the remote control to display the Picture menu.

❷ Press the DOWN button on the remote control to select the submenu options and press the LEFT/RIGHT button to make the adjustments.

■ The picture menu is as follows, if the signal source is CVBS, S-VIDEO or YPbPr:



■ The picture menu is as follows, if the signal source is VGA:



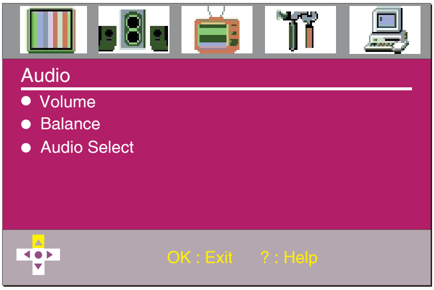
❸ The Picture menu includes the following options:

Picture Mode	Custom/Standard/Vivid/Mild
Contrast	Adjusts the distinction between the black and white parts of the picture
Brightness	Adjusts to brighten the darkest parts of the picture
Colour	Adjusts to add or reduce the colour
Sharpness	Improves picture details
Advanced	Improves picture quality, e.g. Noise Reduction, DCE(Digital Contrast Enhancer), Blue Stretch, Green Stretch and Colour Temp(Colour Temperature). Colour Temp: Warm: will keep the whites reddish. Cool: will keep the whites bluish. Standard: will keep the whites in the even tone.

Sound Adjustment

❶ Press the MENU button on the remote control to display the main menu. press the LEFT/RIGHT button to select the Audio menu.

❷ Press the DOWN button on the remote control to select the submenu options and press the LEFT/RIGHT button to make the adjustments.



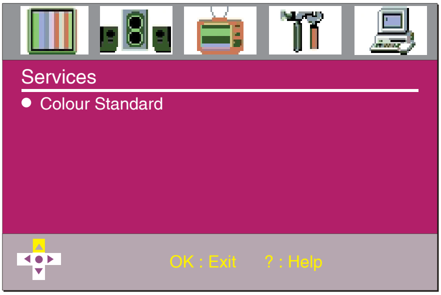
❸ The Audio menu includes the following options:

Volume	Adjusts the sound level
Balance	Adjusts the level of the sound coming from the left and rightspeakers of the monitor
Auido Select	1. When on Off mode, there is no audio input for all sources, except for CVBS1 2. When on On mode, there is auido input for all sources

System Setting

❶ Press the MENU button on the remote control to display the main menu. press the LEFT/RIGHT button to select the Services menu.

❷ Press the DOWN button on the remote control to select the submen options and press the LEFT/RIGHT button to make the adjustments.



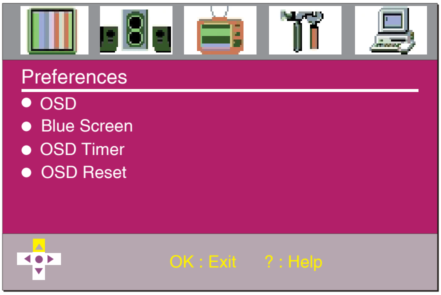
❸ The Services menu includes the following options:

Colour Standard	AUTO/NTSC M/PAL/PAL 60 NTSC 443/SECAM

Preferences Setting

❶ Press the MENU button on the remote control to display the main menu. press the LEFT/RIGHT button to select the Preferences menu.

❷ Press the DOWN button on the remote control to select the submenu options and press the LEFT/RIGHT button to make the adjustments.



❸ The Preferences menu includes the following options:

OSD	Set the OSD language and transparency.
Blue Screen	Set On/Off, when no signal input
OSD Time	5s/10s/15s/20s/25s.
OSD Reset	Restore to the factory default

Troubleshooting

Some problems you encounter with your monitor can be corrected by consulting the following list, so please check it before asking the help from the dealer.

SYMPTOM	POSSIBLE CAUSES
BLANK SCREEN	• Check if 220V power plug is inserted fully into the outlet. • Check if the power switch on the back is turned on. • The unit is not in the standby mode.
NO PICTURE	• Check if the cables are well connected. • Check if the current video input is correct. • Check if the power switch of the external equipment is turned on and working in a good condition.
NO SOUND	• Make sure the audio input signal is good. • Check if the audio connect cable is in a good condition. • Enter the Audio menu, select the Volume option and then press the RIGHT button to increase the sound level.
POOR PICTURE	• Make sure all the connections are in a good condition. • Check if the external equipment is normally working. • Check all the settings are made according to the user manual or restore to the factory default.
DARK PICTURE	• The screen illuminator may be up to expiry date.
RIPPLES OR DARK COLOUR OR INTERFERENCE	• Keep the unit away from the appliances that may produce the interference.

Technical Specifications

Model	ML20
Screen Size	20”
Display Area	408.24mm(H)x306.18mm(V)
Dimensions (Base/Bracket excluded)	443.0mm(W)x354.5mm(H)x61.5(D)mm
Ratio Display	4:3
LCD	TFT-LCD
Max. Resolution	1400x1050
Colour Display	16.7M
Matrix (mm)	0.2916(H)x0.2916(V)
Brightness(nits)	500cd/m2
Contrast	700:1
Viewing Angle (Up/Down/Left/Right)	$80^0/80^0/85^0/85^0$
Response Time	8ms
Frequency	60Hz,70Hz,75Hz
Composite Video Input	2 (BNC x 2)
Y, Pb, Pr/Y, Cb, Cr Input	1 (BNC x 3)
S-VIDEO Input	1
D-15 pin RGB Input	1
Audio Input(L/R)	1 (RCA x 2)
21 Pin Composite Jack	1 (SCART x 1)
Composite Video Output	2 (BNC x 2)
Colour Standard	PAL/NTSC/SECAM
Compatible HDTV Input (HDTV Input)	480P,576P, 720P,1080I
3D Combfilter	Yes
Noise Reduction	Yes
Language(optional)	Chinese/English
Built-in Speakers	3W x 2
Mains Power	100-240V~, 50/60Hz
Max. Power Consumption	≤50W
Power Consumption in Standby Mode	<3W

产品及遥控器上的“环保使用期限”标识（如左图所示）， 表明本产品及遥控器的 “环保使用期限”为10年。电池等可更换部件的环保使用期限可能与产品及遥控器环保使用期限有所不同。只有产品在符合本说明书规定的正常条件下使用，“环保使用期限”才有效。

部件名称	有毒有害物质或元素					
	铅（Pb）	汞（Hg）	镉（Cd）	六价铬 Cr（VI）	多溴联苯（PBB）	多溴二苯醚（PBDE）
机芯	×	○	○	○	○	○
显象管	×	○	○	○	○	○
前壳	○	○	○	○	○	○
后壳	○	○	○	○	○	×
扬声器	○	○	○	○	○	○
遥控器	×	○	○	○	○	○
消磁线	○	○	○	○	○	○
螺钉	○	○	○	○	○	○
电源线及连接线	×	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 规定的限值要求以下。

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 规定的限值要求。

注 1 ：本产品应用环保设计理念，对有毒有害物质进行了有效控制。“×”表示的有毒有害物质或元素主要因技术发展水平限制，无法实现有毒有害物质或元素的替代。

注 2 ：上述部件分类视具体产品有所不同，以实际产品为准。

This product is designed and manufactured with high quality materials and components which can be recycled and reused.
This symbol means that electrical and electronic equipment, at their end-of-life, should be disposed of separately from your household waste.
Please, dispose of this equipment at your local community waste collection/recycling centre.
In the European Union there are separate collection systems for used electrical and electronic product.
Please, help us to conserve the environment we live in!

72-ML2000-001

产品执行标准号:Q/WP1002-2007
Product Implementation Standard No.:Q/WP1002-2007
产品标准备案号:QB/441300331275-2007
Product Standardization File No.:QB/441300331275-2007
尊敬的客户:如在使用中遇到问题，请拨打TCL全国统一用户服务热线4008-123456咨询
If you encounter any problem with your monitor, please call TCL nationwide customer service hotline 4008-123456 for assistance.

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